Here is your . . . 1992 index to profitable dairying

Index to Volume 137

HOARD'S DAIRYMAN

W. D. Hoard and Sons Company, Publishers
Fort Atkinson, Wis. 53538

All pages followed by an (R) are in our regional editions.

EXPO pages are in the September 10 issue. QUALITY pages are in May 25.

- A -

Abomasum--displaced.. 158-504
Abortions..... 243
-protozoal 724
Abscess--injection site 551
Acid--free stall bedding additive 836
Additives--acid (free stall bedding) 836
-feeding 296-786
Advertising--personal (success) 660
-positive..... 416
-three-state merger . 744K (R)
A-G Cooperative--merger possibility 283
Agriculture--animal (importance) 491
-spokesman (Lancaster County, Pa.) 199
Agri-Mark--annual meeting 842
Alcoholism--young people .. 549
Alfalfa--bale sampling 744H (R)
-companion crops 56
-cutting 345
-establishing..... 308
-fall management 825
-fertilizing 296-392
-fungicides..... 355
-growing..... 284-332
-growing (World's Forage Analysis Superbowl winners) 297
-harvesting 462
-leafhoppers 511
-manure application 532
-nitrogen source..... 344
-pest control..... 468
-reduced tillage 256
-seed 8-492
-seeding 223
-seeding (late summer) 497
-silage 252
-yield prediction 376
Alaska--Beringia 61
Alliance Dairy (herd expansion) 386
Along the way.... 37-71-121-189-.....239-275-331-363-395-433-.....473-513-549-591-633-665-.....703-761-813-861
American Dairy Science Association--honorees (annual meeting) 622
-reports 748
-student affiliate competition 539
American Guernsey Association--annual meeting... 542
American Jersey Cattle Club--annual meeting 547
American Milking Shorthorn Society--annual meeting 586
Ammonia--application to alfalfa silage 155
Ammonium sulfate--price 17
Anhydrous ammonia--application to alfalfa silage..... 155
Animal agriculture 491-683
Animal byproducts--feeding. 501
Animal rights 683-723
Animal welfare--reproductive management and 210
Animals--transgenic 652
Anionic salts--feeding . 831-837
Antibiotics--residues (milk). 318-.....568
Antiprostaglandin drugs..... 79
Apples--feeding 619
Artificial breeding--breeder-proven bulls..... 285
-clones 856
-computer mating 569
-heifers 534
-heifers (synchronizing).... 557
-linear trait evaluations 521
-marketing 752
-mating program 673
-new technologies..... 388
-sperm production..... 24
-udder composites..... 434
-young sires 569
Assessment refunds..... 110-414-.....778
Associated Milk Producers --annual meeting..... 350
Atresia coli 376
Auction--tele- 129
Australia--dairying ..... 744F (R)
Averhoff, K. and V. (herd management) 203
Ayrshire Breeders Association --annual meeting..... 437

- B -

Bakery--farm (Horst farm) .....422(R)
Balers--PTO's scalp four women 503
Bales--sampling ..... 744H (R)
-sealing with tallow 56
Banking--overdrafts (rural areas) 383
Banya--Russian 283
Barley--feeding, to calves (waxy, hull-less) 782
Barn--block walls 691
-calf (ventilation) 659
-conversion to calf and young stock (inadvisability) 149
-eave troughs 733
-free stall layout..... 17
-frost formation 17-63
-housing 659
-lightning protection 307
-log (Birdsell farm) .... 689 (R)
-roof (snow slide prevention)..... 54
-snow blows in..... 63
-stall length, width..... 353
-ventilation..... 17-261-353-419
Barrier dips 854
Beans--cracking roasted 541
Becky--qualifications for outside job 433
Bed and breakfast ..... 740(R)
-Woodhouse 183
Bedding--evaluation 612
-free stalls 570-836
-mastitis and relation to..... 6
-paper 627-782
Bedroom--mold forms in 63
Beef--dairy 140-344
Bender, J., family (starting in dairying)..... 382 (R)
Benner, E. and G. (bed and breakfast) ..... 740(R)
Bennett, H. and R. (high-altitude farming)..... 108 (R)
Beringia..... 61
Bermudagrass ..... 585 (R)
Big Bad Grace Bazeni 14
Bills, M. D., general manager MABC-Select Sires..... 129
Bioengineering ..... 586 (R)
Birds--control (ridge openings) 791
Birdsell, A. (log barn) .. 689 (R)
BLAD--bull purchasees (caution)..... 200
Bleeding--oral and nasal (cows) 485
Blood pressure--milk lowers, in children 416
BLV (bovine leukemia virus) 571
Bolivia--dairying ..... 753 (R)
Bonde, D. and S. (herd management) ..... 744 L (R)
Bono, A., to California Cooperative Creamery ... 719
Bovine leukemia virus 571
Bovine virus diarrhea--calves 522
Bratland, G., succeeds Paper 320
Breakfast programs--school 449
Breeding--earlier, with feed additives 446
-repeat breeders 803
Breeds--convention and sale dates..... 182
Briarpatch..... 216 (R)
Britt, J., named practitioner of year 745
Brown Swiss Cattle Breeders Association--annual meeting 576
Brown Swiss class in cow judging contest 1
Buchholz, M. (lumber and tourists)..... 236
Buckner, R. (environmental changes)..... 35 (R)
Buesgens, B., B., and H. (expansion project)..... 577(R)
Buffers--feeding 786
Bulk tank--contamination..... 416
-kicks on and off 745
-refrigerant recycling ..... 750-.....800 F (R)
-sanitizing..... 406
Bull-calf (potential sale)..... 718
-herd..... 228
-mean 755
Bull list... 159-160-161-162-163-.....164-200-579-580-581-582-.....583-584
-analysis 139
Bulls--BLAD precautions 200
-breeder-proven 285
-Canadian and U.S. (comparison)..... 616
-safety 333
Bumper sticker 795
Butter--making at home .....744J (R)
Butter Task Force 611
Butterballs--milk..... 425
Bypass protein--feeding 172

- C -

Calcium--dietary, increase (benefits) 532
-limitation before calving 30
-teens need..... 8
Calf--transgenic 207
California--dairying (Tulare County) 452
California Agricultural Leadership Program ..... 800 A (R)
Calves--atresia coli..... 376
-bull (care) 821
-BVD 522
-coccidiosis.. 191-287-492-770
-diet affects gain 724
-early-weaned 684
-enteritis-pneumonia complex 879
-feeding (hull-less barley) 782
-housing..... 385-659-691
-management after weaning 634
-mange 642
-pneumonia 407
-raising 592
-raising (F & R Cattle Co.) 272
-Salmonella 79
-scours 28
-super hutch 572
-tail docking 54
-triplet 411
-weakness and death..... 335
-winter care..... 140
Calving--calcium limitations before 30
-granddaughter's questions 100
-24 months of age..... 58
Calving interval--high genetic cows have longer 448
-maintaining (Kennedy farm)..... 393 (R)
Canada--demonstrations.... 312-.....338
-milk marketing system 55-87
-quota system 727
Carbohydrates--feeding 348-726
Cattle--joy and pain in working with..... 394
-management of slaughter 222
-merchandising (Round Table)..... 90
-necessities of working (humorous) 64
-Poland ..... 800 D (R)
Cavanaugh, J. F., retires..... 73
Cavities--chocolate milk research 684
Cell counts--increased (reasons for)..... 486
Chapping--teat (dips effective against)..... 200
Charbonneau, G. (quota system) 727
Cheese--carving contest (Wisconsin State Fair) .....744G(R)
-National, Exchange.....567
-new, products 783
-production by state..... 519
-tooth cavity control 200
Chemicals--container recycling 296
-less-than-label-rates application 200
-safety 376
-safety (children)..... 650
Children--alcoholism and drug addiction..... 549
-future plans for farming.... 36
-milk drinking and effects on blood pressure..... 416
-safety (chemicals) 650
Chimney--flue crumbling 307
-repairing (home) 733
China--dairying ..... 470(R)
Cholesterol--moderate intake controls stress, metabolism 836
Christmas--harmonizing effect 861
Clean Air Act ..... 750-800 F (R)
Clones 856
Clostridial diseases 738
Coccidiosis--calves..... 191-287-.....492-770
-decoquinate 603
College--degree (importance) .....112 (R)-704
Computers--feeding..... 50
-phone line communication 794
-software 218
Conception rate--body condition and relation to 635
Concrete--grooving 144
-setting time 209
Conference--personnel handling 697
Congdon, E. (low-cost expansion) ..... 694 (R)
Conservation plans..... 88
Consultants--feeding 802
Cook, B. and P. (super hutch) 572
Cookbook--York..... 120
Cooper, S. (herd management) 257
Cooperatives--A-G..... 283
-Agri-Mark 842
-Associated Milk Producers 350
-California Cooperative Creamery 719
-Land O' Lakes..... 268
-Mid-Am and Glenn Milk merge 282
-Mid-America Dairymen.... 368
-NEDCO 651
-Regional Cooperative Marketing Agency 179
-Summit Cheese 810
-Swiss Valley Farms..... 320
-top 50 728
-Wisconsin Dairies ... 286-810
Corn--feeding..... 376
-frost-damaged (harvesting for silage) 636
-hybrids (silage properties) 652
-legume plowdown benefits 140
-light (feeding) 845
-moldy 878
-pest control..... 468
-rotating with soybeans ... 724
-silage..... 117
-silage (harvesting)..... 614
-sludge application 836
-tropical 264
-yields higher in narrow rows 200
Corn planter--maintenance.. 252
Cottonseed--replacements . 707
County agents--dinner discussions..... 13
Couples--marriage through personal ads 660
Cow--Marguerite (tribute).... 510
-sculpture (Lyon)..... 223
Cow judging contest--Ayrshire class 133
-Brown Swiss class 1
-Guernsey class..... 81
-Holstein class 49
-Jersey class..... 193
-judges 347
-placings..... 346
-production records..... 299
-reasons 347
-scoring key 346
-winners..... 374-375-431
Cows--appetites suppressed 307
-body condition and relation to conception ... 635-.....701
-dry (feeding)..... 79-385
-fatty liver 8
-flushing 353
-hardware disease 459
-high genetic (longer calving interval) 448
-hot-weather care 419-450
-ketosis..... 8
-lameness 296-316
-leasing (Martin farm).. 626(R)
-lice 349-715
-longevity..... 141
-move killed milk production 558
-point of view on management..... 97
-population (states) 853
-pregnant (heat signs) 801
-slaughter prices 114
-stress 457
-3x milking 416
-top counties 774
-trucking 492
-udder sensors 568
-udder sores 483
-weight loss in early lactation 209
Cream--market..... 32
Crime--rural..... 331
Crops--cost reduction..... 300
Crowell, B. and L. (environmental changes) .....35(R)
Culling..... 141
Custom farming..... 127
Cyst--ovarian (ultrasound)... 652

- D -

Dairy associations--state .. 846-.....847
Dairy beef..... 140-344
Dairy farmers--unity 167
Dairy Festival--Boston .....800 C (R)
Dairy Forum..... 89
Dairy industry--government intervention (worldwide) . 531
-leadership needed 695
-unification needed 317
-world trends 635
Dairy products--evaluation contest 821
-farm value as percent of retail costs 114
-new 725-783
-off-flavors..... 78-804
-shipment to Russia..... 179
Dairy promotion--Boston dairy festival ..... 800 C (R)
-Indy 500..... 522
-milk campaign (adults) ... 858
-Milk Work Group 304
-National Dairy Board 383-493
-new foods 725-783
-Oregon Dairy Products Commission..... 405
-positive advertising..... 416
Dairy Shrine--Awards and Recognition Banquet..... 351
-Guest of Honor (D. Weaver) ..... EXPO 34
-nominations sought 93
-pioneers ..... EXPO 35
-social at World Dairy Expo ..... EXPO 32
-Student Recognition Award (J. Engel)..... 556
-UDIA, scholarships EXPO 30
Dairying--Australia..... 744F (R)
-Bolivia ..... 753 (R)
-California (Tulare County)..... 452
-China ..... 470(R)
-choice 6
-England ..... 206 (R)
-exotic places ..... 302-303 (R)
-getting started 364-436
-getting started (Bender family)..... 382 (R)
-Great Wall..... 470(R)
-Hungary 742
-innovations (cost-cutting) 451
-Latvia..... 21 (R)
-legislation needed 7
-megatrends 455
-1990's ..... 464 (R)
-Russia 768
-urban fringe 418
-Uruguay ..... 850 (R)
-Wales..... 206 (R)
Dairyman's Journal 61-130-190-.....263-305-389-453-620
Dairymen, Inc.--annual meeting..... 44-95
Database--National Dairy ... 724
Decoquinate--coccidiosis prevention..... 603
Den Tandt, J., new manager United Breeders 601
Denmark--drought 756
Desserts--dairy 783
DHI--next-day reports (Kansas lab) 744
-persistency values..... 149
-records (controversy)..... 447-.....456
-records (goal-setting)..... 201
-records (interpreting) ..... 800 (R)
Displaced abomasum... 156-504
Divorce 548
Dogs--racing 305
-sled (Vixen)..... 130
-veterinarian getting bit.... 397
Drinking cups--installation ... 149
Driveway--pitted 575
Drought--Denmark 756
-Sweden 756
Drugs--false positives..... 241
-manual (availability)..... 23
-mastitis treatment without..... QUALITY 10
-residues (milk)..... 318
-residues (new program).... 22
-Rx and OTC ..... QUALITY 6 and 7
-storage . QUALITY 12 and 13
-testing 871
-tests (milk) ..... QUALITY 5
Dry matter intake..... 376
Duck (Gimpy) 712
Dukas, P., NDHIA CEO..... 635
Dysentery--winter..... 396

- E -

Eave troughs--barn 733
EC (see European Community)
Editorials--animal care 618
-animal rights agenda 790
-antiagriculture attacks 732
-breed association ideas (Cavanaugh guest editorial) 858
-cereals boost fluid milk use 456
-Christmas 844
-consumer uproar 148
-cooperatives 352-690
-cows' response to good conditions, good feed 890
-Dairy Round Table..... 260
-dairying (future)..... 352
-dairying (positives)..... 844
-dairying (priorities)..... 844
-direct-ship milk 574
-drugs (extra-label)..... 618
-Dunkel GATT proposal.... 148
-Dunkel Text..... 306
-environmental restrictions 306
-false positive drug tests.. 208
-family relationships 544
-federal orders 208
-federal orders (lawsuits).. 306
-fluid milk sales..... 384
-fluid milk sales (generic ads)..... 540
-food labeling laws..... 424
-food program costs 62
-free-milk advertising 62
-heifer tax 456
-Holstein herdbook 544
-income (comfortable living) 98
-jobs (agricultural) 690
-leadership changes 98
-management time 658
-M-W replacement 16
-milk attacks 790
-Milk Marketing, Inc. 352
-milk payments 574
-milk price jump 424
-milk prices (waiting game)

KEY TO PAGE NUMBERS

January 10	1-48	June	441-484
January 25	49-80	July	485-524
February 10	81-132	August 10	525-560
February 25	133-192	August 25	561-604
March 10	193-244	September 10	605-644
March 25	245-296	September 25	645-676
April 10	289-336	October 10	677-716
April 25	337-388	October 25	717-772
May 10	389-436	November	773-828
May 25	409-440	December	829-880

Here is your . . . 1992 index to profitable dairying

Index to Volume 137

HOARD'S DAIRYMAN

W. D. Hoard and Sons Company, Publishers
Fort Atkinson, Wis. 53538

All pages followed by an (R) are in our regional editions.

EXPO pages are in the September 10 issue. QUALITY pages are in May 25.

- A -

Abomasum--displaced.. 158-504
Abortions..... 243
-protozoal 724
Abscess--injection site 551
Acid--free stall bedding additive 836
Additives--acid (free stall bedding) 836
-feeding 296-786
Advertising--personal (success) 660
-positive..... 416
-three-state merger . 744K (R)
A-G Cooperative--merger possibility 283
Agriculture--animal (importance) 491
-spokesman (Lancaster County, Pa.) 199
Agri-Mark--annual meeting 842
Alcoholism--young people .. 549
Alfalfa--bale sampling 744H (R)
-companion crops 56
-cutting 345
-establishing..... 308
-fall management 825
-fertilizing 296-392
-fungicides..... 355
-growing..... 284-332
-growing (World's Forage Analysis Superbowl winners) 297
-harvesting 462
-leafhoppers 511
-manure application 532
-nitrogen source..... 344
-pest control..... 468
-reduced tillage 256
-seed 8-492
-seeding 223
-seeding (late summer) 497
-silage 252
-yield prediction 376
Alaska--Beringia 61
Alliance Dairy (herd expansion) 386
Along the way.... 37-71-121-189-.....239-275-331-363-395-433-.....473-513-549-591-633-665-.....703-761-813-861
American Dairy Science Association--honorees (annual meeting) 622
-reports 748
-student affiliate competition 539
American Guernsey Association--annual meeting... 542
American Jersey Cattle Club--annual meeting 547
American Milking Shorthorn Society--annual meeting 586
Ammonia--application to alfalfa silage 155
Ammonium sulfate--price 17
Anhydrous ammonia--application to alfalfa silage..... 155
Animal agriculture 491-683
Animal byproducts--feeding. 501
Animal rights 683-723
Animal welfare--reproductive management and 210
Animals--transgenic 652
Anionic salts--feeding . 831-837
Antibiotics--residues (milk). 318-.....568
Antiprostaglandin drugs..... 79
Apples--feeding 619
Artificial breeding--breeder-proven bulls..... 285
-clones 856
-computer mating 569
-heifers 534
-heifers (synchronizing).... 557
-linear trait evaluations 521
-marketing 752
-mating program 673
-new technologies..... 388
-sperm production..... 24
-udder composites..... 434
-young sires 569
Assessment refunds..... 110-414-.....778
Associated Milk Producers --annual meeting..... 350
Atresia coli 376
Auction--tele- 129
Australia--dairying ..... 744F (R)
Averhoff, K. and V. (herd management) 203
Ayrshire Breeders Association --annual meeting..... 437

- B -

Bakery--farm (Horst farm) .....422(R)
Balers--PTO's scalp four women 503
Bales--sampling ..... 744H (R)
-sealing with tallow 56
Banking--overdrafts (rural areas) 383
Banya--Russian 283
Barley--feeding, to calves (waxy, hull-less) 782
Barn--block walls 691
-calf (ventilation) 659
-conversion to calf and young stock (inadvisability) 149
-eave troughs 733
-free stall layout..... 17
-frost formation 17-63
-housing 659
-lightning protection 307
-log (Birdsell farm) .... 689 (R)
-roof (snow slide prevention)..... 54
-snow blows in..... 63
-stall length, width..... 353
-ventilation..... 17-261-353-419
Barrier dips 854
Beans--cracking roasted 541
Becky--qualifications for outside job 433
Bed and breakfast ..... 740(R)
-Woodhouse 183
Bedding--evaluation 612
-free stalls 570-836
-mastitis and relation to..... 6
-paper 627-782
Bedroom--mold forms in 63
Beef--dairy 140-344
Bender, J., family (starting in dairying)..... 382 (R)
Benner, E. and G. (bed and breakfast) ..... 740(R)
Bennett, H. and R. (high-altitude farming)..... 108 (R)
Beringia..... 61
Bermudagrass ..... 585 (R)
Big Bad Grace Bazeni 14
Bills, M. D., general manager MABC-Select Sires..... 129
Bioengineering ..... 586 (R)
Birds--control (ridge openings) 791
Birdsell, A. (log barn) .. 689 (R)
BLAD--bull purchasees (caution)..... 200
Bleeding--oral and nasal (cows) 485
Blood pressure--milk lowers, in children 416
BLV (bovine leukemia virus) 571
Bolivia--dairying ..... 753 (R)
Bonde, D. and S. (herd management) ..... 744 L (R)
Bono, A., to California Cooperative Creamery ... 719
Bovine leukemia virus 571
Bovine virus diarrhea--calves 522
Bratland, G., succeeds Paper 320
Breakfast programs--school 449
Breeding--earlier, with feed additives 446
-repeat breeders 803
Breeds--convention and sale dates..... 182
Briarpatch..... 216 (R)
Britt, J., named practitioner of year 745
Brown Swiss Cattle Breeders Association--annual meeting 576
Brown Swiss class in cow judging contest 1
Buchholz, M. (lumber and tourists)..... 236
Buckner, R. (environmental changes)..... 35 (R)
Buesgens, B., B., and H. (expansion project)..... 577(R)
Buffers--feeding 786
Bulk tank--contamination..... 416
-kicks on and off 745
-refrigerant recycling ..... 750-.....800 F (R)
-sanitizing..... 406
Bull-calf (potential sale)..... 718
-herd..... 228
-mean 755
Bull list... 159-160-161-162-163-.....164-200-579-580-581-582-.....583-584
-analysis 139
Bulls--BLAD precautions 200
-breeder-proven 285
-Canadian and U.S. (comparison)..... 616
-safety 333
Bumper sticker 795
Butter--making at home .....744J (R)
Butter Task Force 611
Butterballs--milk..... 425
Bypass protein--feeding 172

- C -

Calcium--dietary, increase (benefits) 532
-limitation before calving 30
-teens need..... 8
Calf--transgenic 207
California--dairying (Tulare County) 452
California Agricultural Leadership Program ..... 800 A (R)
Calves--atresia coli..... 376
-bull (care) 821
-BVD 522
-coccidiosis.. 191-287-492-770
-diet affects gain 724
-early-weaned 684
-enteritis-pneumonia complex 879
-feeding (hull-less barley) 782
-housing..... 385-659-691
-management after weaning 634
-mange 642
-pneumonia 407
-raising 592
-raising (F & R Cattle Co.) 272
-Salmonella 79
-scours 28
-super hutch 572
-tail docking 54
-triplet 411
-weakness and death..... 335
-winter care..... 140
Calving--calcium limitations before 30
-granddaughter's questions 100
-24 months of age..... 58
Calving interval--high genetic cows have longer 448
-maintaining (Kennedy farm)..... 393 (R)
Canada--demonstrations.... 312-.....338
-milk marketing system 55-87
-quota system 727
Carbohydrates--feeding 348-726
Cattle--joy and pain in working with..... 394
-management of slaughter 222
-merchandising (Round Table)..... 90
-necessities of working (humorous) 64
-Poland ..... 800 D (R)
Cavanaugh, J. F., retires..... 73
Cavities--chocolate milk research 684
Cell counts--increased (reasons for)..... 486
Chapping--teat (dips effective against)..... 200
Charbonneau, G. (quota system) 727
Cheese--carving contest (Wisconsin State Fair) .....744G(R)
-National, Exchange.....567
-new, products 783
-production by state..... 519
-tooth cavity control 200
Chemicals--container recycling 296
-less-than-label-rates application 200
-safety 376
-safety (children)..... 650
Children--alcoholism and drug addiction..... 549
-future plans for farming.... 36
-milk drinking and effects on blood pressure..... 416
-safety (chemicals) 650
Chimney--flue crumbling 307
-repairing (home) 733
China--dairying ..... 470(R)
Cholesterol--moderate intake controls stress, metabolism 836
Christmas--harmonizing effect 861
Clean Air Act ..... 750-800 F (R)
Clones 856
Clostridial diseases 738
Coccidiosis--calves..... 191-287-.....492-770
-decoquinate 603
College--degree (importance) .....112 (R)-704
Computers--feeding..... 50
-phone line communication 794
-software 218
Conception rate--body condition and relation to 635
Concrete--grooving 144
-setting time 209
Conference--personnel handling 697
Congdon, E. (low-cost expansion) ..... 694 (R)
Conservation plans..... 88
Consultants--feeding 802
Cook, B. and P. (super hutch) 572
Cookbook--York..... 120
Cooper, S. (herd management) 257
Cooperatives--A-G..... 283
-Agri-Mark 842
-Associated Milk Producers 350
-California Cooperative Creamery 719
-Land O' Lakes..... 268
-Mid-Am and Glenn Milk merge 282
-Mid-America Dairymen.... 368
-NEDCO 651
-Regional Cooperative Marketing Agency 179
-Summit Cheese 810
-Swiss Valley Farms..... 320
-top 50 728
-Wisconsin Dairies ... 286-810
Corn--feeding..... 376
-frost-damaged (harvesting for silage) 636
-hybrids (silage properties) 652
-legume plowdown benefits 140
-light (feeding) 845
-moldy 878
-pest control..... 468
-rotating with soybeans ... 724
-silage..... 117
-silage (harvesting)..... 614
-sludge application 836
-tropical 264
-yields higher in narrow rows 200
Corn planter--maintenance.. 252
Cottonseed--replacements . 707
County agents--dinner discussions..... 13
Couples--marriage through personal ads 660
Cow--Marguerite (tribute).... 510
-sculpture (Lyon)..... 223
Cow judging contest--Ayrshire class 133
-Brown Swiss class 1
-Guernsey class..... 81
-Holstein class 49
-Jersey class..... 193
-judges 347
-placings..... 346
-production records..... 299
-reasons 347
-scoring key 346
-winners..... 374-375-431
Cows--appetites suppressed 307
-body condition and relation to conception ... 635-.....701
-dry (feeding)..... 79-385
-fatty liver 8
-flushing 353
-hardware disease 459
-high genetic (longer calving interval) 448
-hot-weather care 419-450
-ketosis..... 8
-lameness 296-316
-leasing (Martin farm).. 626(R)
-lice 349-715
-longevity..... 141
-move killed milk production 558
-point of view on management..... 97
-population (states) 853
-pregnant (heat signs) 801
-slaughter prices 114
-stress 457
-3x milking 416
-top counties 774
-trucking 492
-udder sensors 568
-udder sores 483
-weight loss in early lactation 209
Cream--market..... 32
Crime--rural..... 331
Crops--cost reduction..... 300
Crowell, B. and L. (environmental changes) .....35(R)
Culling..... 141
Custom farming..... 127
Cyst--ovarian (ultrasound)... 652

- D -

Dairy associations--state .. 846-.....847
Dairy beef..... 140-344
Dairy farmers--unity 167
Dairy Festival--Boston .....800 C (R)
Dairy Forum..... 89
Dairy industry--government intervention (worldwide) . 531
-leadership needed 695
-unification needed 317
-world trends 635
Dairy products--evaluation contest 821
-farm value as percent of retail costs 114
-new 725-783
-off-flavors..... 78-804
-shipment to Russia..... 179
Dairy promotion--Boston dairy festival ..... 800 C (R)
-Indy 500..... 522
-milk campaign (adults) ... 858
-Milk Work Group 304
-National Dairy Board 383-493
-new foods 725-783
-Oregon Dairy Products Commission..... 405
-positive advertising..... 416
Dairy Shrine--Awards and Recognition Banquet..... 351
-Guest of Honor (D. Weaver) ..... EXPO 34
-nominations sought 93
-pioneers ..... EXPO 35
-social at World Dairy Expo ..... EXPO 32
-Student Recognition Award (J. Engel)..... 556
-UDIA, scholarships EXPO 30
Dairying--Australia..... 744F (R)
-Bolivia ..... 753 (R)
-California (Tulare County)..... 452
-China ..... 470(R)
-choice 6
-England ..... 206 (R)
-exotic places ..... 302-303 (R)
-getting started 364-436
-getting started (Bender family)..... 382 (R)
-Great Wall..... 470(R)
-Hungary 742
-innovations (cost-cutting) 451
-Latvia..... 21 (R)
-legislation needed 7
-megatrends 455
-1990's ..... 464 (R)
-Russia 768
-urban fringe 418
-Uruguay ..... 850 (R)
-Wales..... 206 (R)
Dairyman's Journal 61-130-190-.....263-305-389-453-620
Dairymen, Inc.--annual meeting..... 44-95
Database--National Dairy ... 724
Decoquinate--coccidiosis prevention..... 603
Den Tandt, J., new manager United Breeders 601
Denmark--drought 756
Desserts--dairy 783
DHI--next-day reports (Kansas lab) 744
-persistency values..... 149
-records (controversy)..... 447-.....456
-records (goal-setting)..... 201
-records (interpreting) ..... 800 (R)
Displaced abomasum... 156-504
Divorce 548
Dogs--racing 305
-sled (Vixen)..... 130
-veterinarian getting bit.... 397
Drinking cups--installation ... 149
Driveway--pitted 575
Drought--Denmark 756
-Sweden 756
Drugs--false positives..... 241
-manual (availability)..... 23
-mastitis treatment without..... QUALITY 10
-residues (milk)..... 318
-residues (new program).... 22
-Rx and OTC ..... QUALITY 6 and 7
-storage . QUALITY 12 and 13
-testing 871
-tests (milk) ..... QUALITY 5
Dry matter intake..... 376
Duck (Gimpy) 712
Dukas, P., NDHIA CEO..... 635
Dysentery--winter..... 396

- E -

Eave troughs--barn 733
EC (see European Community)
Editorials--animal care 618
-animal rights agenda 790
-antiagriculture attacks 732
-breed association ideas (Cavanaugh guest editorial) 858
-cereals boost fluid milk use 456
-Christmas 844
-consumer uproar 148
-cooperatives 352-690
-cows' response to good conditions, good feed 890
-Dairy Round Table..... 260
-dairying (future)..... 352
-dairying (positives)..... 844
-dairying (priorities)..... 844
-direct-ship milk 574
-drugs (extra-label)..... 618
-Dunkel GATT proposal.... 148
-Dunkel Text..... 306
-environmental restrictions 306
-false positive drug tests.. 208
-family relationships 544
-federal orders 208
-federal orders (lawsuits).. 306
-fluid milk sales..... 384
-fluid milk sales (generic ads)..... 540
-food labeling laws..... 424
-food program costs 62
-free-milk advertising 62
-heifer tax 456
-Holstein herdbook 544
-income (comfortable living) 98
-jobs (agricultural) 690
-leadership changes 98
-management time 658
-M-W replacement 16
-milk attacks 790
-Milk Marketing, Inc. 352
-milk payments 574
-milk price jump 424
-milk prices (waiting game)

KEY TO PAGE NUMBERS

January 10	1-48	June	441-484
January 25	49-80	July	485-524
February 10	81-132	August 10	525-560
February 25	133-192	August 25	561-604
March 10	193-244	September 10	605-644
March 25	245-296	September 25	645-676
April 10	289-336	October 10	677-716
April 25	337-388	October 25	717-772
May 10	389-436	November	773-828
May 25	409-440	December	829-880

All pages followed by an (R) appear in our regional editions only. To obtain copies of specific regional articles, write: Editorial Department, Hoard's Dairyman, Box 801, Fort Atkinson, WI 53538.

.....260
-milk production 658
-National Cheese Exchange 574
-National Dairy Board..... 98
-news (negative) 208
-Newsweek article..... 384
-organization unrest..... 384
-profit factor..... 62
-quality milk..... QUALITY 3
-records debate 456
-relief milker needs 732
-safety (farm) 424
-selfish motives 16
-stray voltage..... 148
-The People Side..... 16
-tolerance in agriculture .. 732
-visitors (farm) 790
-water importance for cows 280
-Weiss, T., (invitation)..... 618
-youth efforts promote animal care 618
Ellor, A., Ayrshire operations officer 701
Embryo transfer 654
-Van Wagner farm ..... 426 (R)
Employees--incentives . 344-483
-interviewing..... 18
-wages 713
Engel, J. (Dairy Shrine Student Recognition Award) 556
Esbenshade, L. and I. (bed and breakfast) ..... 740 (R)
Etgen, W. M., dies..... 479
European Community --Feta skirmish 830
-reform package 628
Expansion--Buesegens farm ..... 577(R)
-herd..... 386
-low-cost (Congdon farm) .....694 (R)

- F -

F & R Cattle Company (calf raising) 272
Fairs--county 591
Family relationships .... 540-548-.....549
Farm--family relationships ..540-.....548-549
-father-son arrangement..... 17
-financing 364-436
-jobs (reasons people turn down)..... 116
-labor (incentives)..... 344-463
-labor (interviewing employees)..... 18
-labor (wages) 713
-owner location 636
-routine check (milking practices and equipment) 748
-transfer 365-702-812
-visitors (open house suggestions)..... 206 (R)
-water usage study 751
Farmer--special qualities .....216 (R)
-young, loans 719
Farming--custom..... 127
Fat--feeding... 149-252-261-535-.....568
Fatty liver..... 8-652
Federal orders ..... 180-343-417-.....657(R)
Feed--additives..... 296-786
-buying all (Pickard Family) 496
-cold-weather boost 8
-commodity 492
-moldy 878
-supplements (mixing) 140
Feeders--fence-line 684
Feeding--additives 786
-animal byproducts 501
-anionic salts 831-837
-apples 619
-barley to calves 782
-bypass protein..... 172-734
-caged layer waste 147
-carbohydrates..... 348-726
-cold-weather 782
-commodity feeds 492
-computer..... 50
-consultants 802
-corn..... 378
-cottonseed replacements 707
-dry cows 79-385
-dry matter intake 376
-early-lactation feed intake and energy balance.....34
-energy feeds 671
-fat 149-252-261-535-568
-feast-famine 836
-fiber 376
-fish meal 416
-forage 494-507-536-537
-forage (grasses)..... 380
-forage (total performance index)..... 314
-grease (recycled)..... 251
-hay silage 575
-hay silage (Lourie Farm). 536
-haylage 536-575
-heifers..... 202-672
-high production (Round Table)..... 58
-light corn 845
-maximum production..... 385
-minerals 30-457
-niacin 786
-orchardgrass..... 204
-pea-triticale blends 787
-peanut skins 612
-protein 685
-protein blends..... 471
-reproduction and (follicle size)..... 296
-research reports 746
-selenium 691
-seminar 621
-series . 655-685-726-786-840
-silage 390
-soybean fodder 659
-soyhulls..... 344
-survey (six top Wisconsin herds) 686
-tallow 612
-urea 791
Fencer--solar 575
Fertilizer--alfalfa..... 296-392
-manure..... 140
Feesenden Farms (herd management)..... 420
Feta--EC skirmish 830
FFA--awards 13
Fiber--dry matter intake..... 376
Filing system 121
Fish meal--feeding..... 416
Fisher-Place Mandingo (one million units semen) 621
Floors--grooving..... 144
Flushing 261
Fly control--parasitic wasps .....266-800 B (R)
-pinkeye 448
Food Guide Pyramid 448
Food labeling 466
Foods--new dairy 725
Foot problems..... 296-316-696
Foot rot 243
Forage--Bermudagrass . 585(R)
-feeding 507-536-537
-grass..... 145-380
-Green-Gold program.....28
-high-moisture, causes sore feet 316
-orchardgrass..... 204
-production (Green-Gold program) 28
-sorghum-sudangrass..... 149
-soyhulls..... 344
-spring, conference (dates) 95
-supplies (stretching) 494
-supplies and needs 561
-testing 652
-total performance index... 314
Forage Analysis Superbowl --winners 297
Foster, W. (artificially breeding heifers) 534
4-H--advice to dairy industry. 73
-dairy shows..... 480
-history 814
-judging (Myers family) 315(R)
-South Carolina, Dairy Program (tele-auction)..... 129
Franks, M.E., dies..... 286
Free stalls--bases..... 379
-bedding 570
-bedding (acid addition) .. 836
-design 254
-management (Round Table) 142
Freon--recycling 750
Friends 665
Friesen, B., family (herd management)..... 381
Froehlich Acres (alfalfa growing)..... 297
Front-wheel drive..... 33
FSH--response lacking..... 261
Fungicides 355
Funk, D. (artificially breeding heifers) 534

- FARM WRITEUPS -

Alliance Dairy (herd expansion) 386
Averhoff, K. and V. (herd management)..... 203
Bender, J., family (getting started in dairying)... 382 (R)
Benner, E. and G. (bed and breakfast) ..... 740 (R)
Bennett, H. and R. (high-altitude farming) ..... 108 (R)
Birdsell, A. (log barn) .. 689 (R)
Bonde, D. and S. (herd management) ..... 744L(R)
Buchholz, M. (lumber and tourists)..... 236
Buckner, R. (environmental changes)..... 35 (R)
Buesgens, B., B., and H. (expansion project)..... 577(R)
Charbonneau, G. (quota system) 727
Congdon, E. (low-cost expansion) ..... 694 (R)
Cook, B. and P. (super hutch) 572
Cooper, S. (herd management) 257
Crowell, B. and L. (environmental changes) .....35 (R)
Esbenshade, L. and I. (bed and breakfast) ..... 740 (R)
F & R Cattle Company (calf raising) 272
Feesenden Farms (herd management)..... 420
Foster, W. (artificially breeding heifers) 534
Friesen, B., family (herd management)..... 381
Froehlich Acres (alfalfa growing) 297
Funk, D. (artificially breeding heifers) 534
Gerrits, B. and L. (herd management) ..... 154 (R)
Gordon, J., and daughters (ImmuCell program) ..... 586(R)
Haupt, F. and A. (pasture) ..... 699 (R)
Hershey, A., and family (urban fringe) ..... 852 (R)
Hewlett, J. (getting started). 128
Horst, E. (farm bakery) ..422 (R)
House, P. (artificially breeding heifers) 534
Hurtgen, L. and K. (herd management)..... 267
Jackson's Dairy ("Granny") ..... 754 (R)
Johnson, B. and B. (hot-weather herd management) 450
Kay-Ben Holsteins (Immu-Cell program) ..... 586(R)
Kempton, L., family (Jersey herd) ..... 859 (R)
Kennedy, R. and L. (calving interval)..... 393 (R)
Larsen, E. (alfalfa growing). 297
Larson Dairy 354
Lourie, D. and C. (hay silage) 536
Maroney, J. (organic milk)... 502
Mars Brothers (2 1/2x milking) 86
Martin, L. (leasing cows) .....626(R)
Maystock Southern Dairies ..... 545(R)
McArthur, S. (herd expansion)..... 386
Metzler, M. and B. (bed and breakfast) ..... 740 (R)
Murphy, D., and B. (rabies) ..... 843 (R)
Myers, J., family (4-H dairy cattle judging)..... 315 (R)
Nissley, J. and E. (bed and breakfast) ..... 740 (R)
Norks, M. (manure spill) 656
O'Neil, L. (mean bull) 755
Opperman, F. (Milk and Dairy Beef Quality Assurance Program)..... 41
Parsons, K. (starting dairying) 128
Pickard Family (buying all feed)..... 496
Rainey, M. (herd management) ..... 216 (R)
St. John, R. (herd expansion)..... 386
Scott, H. ..... 469(R)
Smyser, R. and R. (herd management) ..... 841 (R)
Steffes, J. and D. (herd management)..... 45
Steward, M. and S. (getting started)..... 128
Stone, B. (seasonal milking) ..... 749 (R)
Thoman, M. (manure spill) 656
Thompson, T. (manure handling)..... 106
Van Wagner, T. and R. (embryo transfer)..... 426
Weiss, S., family (pipeline cleaner tragedy) 60
Wenthold, T. (herd management) ..... 800 H (R)
Winkle, W. (manure spill) ... 656
Woodhouse, R. (bed and breakfast)..... 183

- G -

Gallagher, T. P., promoted at UDIA 182
Gardner, L., heads RCMA... 111
Gates--locking head (P. House) 534
GATT--Canadians demonstrate against 312-338
Geese--wild (lessons to be learned)..... 239
Gel--teat 448
Generators--standby .. 744E (R)
Genetic markers..... 57
Genetics ..... 800 E (R)
Georgia Dairy Herd Management Conference--dates 607
Gerrits, B. and L. (herd management) ..... 154 (R)
Gimpy 712
Glenn Milk Cooperative--Mid-Am, merge 282
Gordon, J., and daughters (ImmuCell program) .. 586(R)
Graduation..... 473
Grain--determining needs .. 652
Grass--forage 145-380
Grease--feeding recycled.... 251
Great Wall--dairying ..... 470(R)
Green-Gold program 26
Grooving--slippery floors and lots 144
Gus 453

- H -

Hardware disease 459
Haupt, F. and A. (pasture) ..... 699(R)
Hay--buying 63
-pricing (forage test results) 782
-pricing standing 436
-relative feed value 782
-shortage 507
-spontaneous combustion (prevention)..... 568
Hay show--category of entries 151
Hay silage 536-575
Haylage 536-575
Hazard Analysis and Critical Control Points..... 22
Health care proxy law 693
Heat--cycles (extended)..... 642
-pregnant cows show 801
Heifers--body scoring 213
-breeding..... 425
-breeding A.I. on pasture 534
-calving at 24 months..... 56
-custom raising 533-615
-early bagging..... 131
-feed additives (earlier breeding) 448
-feeding..... 202-271-672
-freshening early 416
-infertility problems..... 47
-lameness 237
-lice 715
-management after weaning 634
-mastitis 684-782

-milk production 96
-raising (Wisconsin) 792
-raising cost 378
-replacement 460
-selecting project..... 240
-selenium supplementation 492
-string of 411
-super hutch 572
-switch loss 367
-synchronizing 557
-warts 675-827
Hemorrhage--mouth and nose (cows) 485
Herbicides--less-than-label-rates application 200
Herd--expansion (Alliance Dairy) 386
-50-cow 613
-hot-weather management 419-450
-management (Averhoff farm) 203
-management (Bennett farm) ..... 108(R)
-management (Bonde farm) ..... 744L (R)
-management (Cooper farm) 257
-management (cow's point of view) 97
-management (Feesenden Farms) 420
-management (Friesen family) 381
-management (Garrits farm) ..... 154 (R)
-management (Hurtgen farm) 267
-management (Larson Dairy) 354
-management (Maestock) ..... 545(R)
-management (Rainey farm) ..... 216 (R)
-management (Round Table) 784-838
-management (Smyser farm) ..... 841 (R)
-management (Steffes farm) 45
-management (Wenthold farm) ..... 800 H (R)
Herd health--10 commandments 92
Herdbook--National Holstein Association 536
Hershey, A., and family (urban fringe) ..... 852 (R)
Hershey chocolate--history ..... 573(R)
Hewlett, J. (getting started). 128
Holland--robot milker ... 506 (R)
Holstein Association--staff reorganization 175
Holstein bull--Fisher-Place Mandingo (one million units semen) 621
Holstein Friesian World Conference--dates 23
Holsteins--annual meeting . 538
-Expo show video.... EXPO 30
Home--lightning rods 691
-repainting 209
-sealing gaps 791-845
-siding (painting aluminum) 501
-siding (painting steel) 619
-windows 63
-wood preservative treatment (doors and windows) 99
Horns--bulls and cows 628
Horses--adoption information (availability) 30
Horst, E. (farm bakery). 422 (R)
Hot weather--herd management..... 419-450
House, P. (artificially breeding heifers) 534
Hungary--dairying 742
-privatization 629
Hurtgen, L. and K. (herd management) 267
Hutch--super, for heifers 572

- HANDY HINTS -

Belting--surface for walking (cows) 481
Bumper--wagon 115
Bunker silo 862
Bunkers--planks hold tires in place on 273
Calf hutches--ventilation 602
Calves--shelter for bull 481
Cart--milking 692
Caulk bead--smooth 792
Chemicals--childproof storage for dangerous 508
Clipboard--message holder. 170
Conveyor--TMR 692
Curb--manger 546
Elevator--bale, change 762
Extension cord--securing..... 226
Fly sprayer--automatic..... 301
Free stalls--bar holds cows in 31
-plates brace 115
Gate--pipe aisle 692
Gates--rod connects..... 170
Generator--hutch covers 226
Golf cart--pushes up feed .. 862
Hacksaw--blades 508
Hammer--filing face of..... 403
Hay--feeding 31
Jug--feeders 602
-grain holder..... 31
Locks--freezing prevention .. 782
Mailbox--receipt holder 692
-tractor, holds ration papers 546
Manger--curb 546
-slope 762
Meter--mirror shows 170
Misting system..... 273
Nail carrier (jug) 170
Nails--increasing strength .. 815
Nut--locking 546
Oil change--recording..... 31
Paint--skin prevention 692
-storing leftover 862
Paint brushes--soaking in vinegar 602
Panels--fiberglass, shelter calves 481
Pipe--chopped straw blowing 226
Plywood--feeding papers (organization) 815
Posthole--depth marker..... 226
Saws--sharpening..... 273
Scraper--space for..... 403
Stalls--dry cow, from unused box stalls 403
-remodeled 115
Tape recorder--farm use 508
Tires--beadless (free stalls). 170
-half, to cover bunker silo 301
TMR--feeding, in stall barn . 226
Tools--buckets hold..... 115
Towels--pail holds 815
Trailer--feed storage 115
Valve--flapper, on balance tank 862

- I -

Ice cream--consumption..... 88
-scooper bowl ..... 800 C (R)
Identification--electronic..... 9
ImmuCell Corporation (research) ..... 586(R)
Inbreeding ..... 206 (R)
Incentives 344-463
Income taxes--medical fringe benefit plan 612
Indians 275
Indy 500-milk promotion 522
Inoculants--silage 606
Inspections--milk quality..... 94
Interest rates--ag loans..... 88
Iron--milk doesn't block, absorption..... 56

- J -

Jackson, "Granny" ..... 754 (R)
Jackson's Dairy (story of "Granny") ..... 754 (R)
Jerseys--annual meeting 547
Johne's disease 619-630
-control 724
-research 532
-Wisconsin 171
Johnson, B. and B. (hot-weather herd management) 450
Judging--comment on ..... EXPO 32
-4-H (Myers family .....315 (R)
-humorous story 793
Jugs--recycled plastic milk . 714

- K -

Kay-Ben Holsteins (Immu-Cell program) ..... 586(R)
Kempton, L., family (Jersey herd) ..... 859 (R)
Kennedy, R. and L. (calving interval)..... 393(R)
Ketosis 8
Kildee Scholarship--lager wine ..... EXPO 32
Klussendorf Trophy--51st, awarded..... EXPO 26
-Voegeli wins 731
-winners (past)..... EXPO 26

- L -

Labeling--food 466
-regulations 415
Labor--farm (incentives) 344-463
-farm (interviewing employees) 18
-farm (reasons people turn down jobs)..... 118
-farm (wages) 713
Lameness..... 296-316-696
Laminitis..... 243-296-316
Lamp sockets--replacing 63
Lancaster County, Pa.,--association with Chamber of Commerce (ag spokesman) 199
Land O' Lakes--annual meeting 268
Larsen, E. (alfalfa growing). 297
Larson Dairy 354
Latvia--farming ..... 21 (R)
Lead--paint 541
Leadership programs...800A (R
Leafhoppers--alfalfa 511
Leasing--cows (Martin farm) ..... 626(R)
Legislation--beginning farmer bill 607
Legumes--unharvested, benefit com..... 140
Leukemia--bovine, virus 571
Leukosis..... 104
Lice 349-715
Life--changes (Edwina Lovelace Gordon)..... 329
Lightning--barn protection ... 307
-home protection 691
Linear trait evaluations 521
Loans 364-436
-ag (interest rates)..... 88
-young farmer 719
Lottery--comments 761
Lourie, D. and C. (hay silage) 536
Love--success stories through personal ads 660
Lyme disease convention --dates..... 179

- M -

Management--business, program (Vermont) .. 805 (R)
-herd (Averhof farm)..... 203
-herd (Bennett farm) . 108 (R)
-herd (Bonde farm) . 744L (R)
-herd (Cooper farm)..... 257
-herd (cow's point of view) . 97
-herd (Feesenden Farms) .420
-herd (Friesen family)..... 381
-herd (Garrits farm)..... 154(R)
-herd (Hurtgen farm)..... 267
-herd (Larson Dairy)..... 354
-herd (Maestock) ..... 545 (R)
-herd (Rainey farm).... 216 (R)
-herd (Round Table) .. 784-838
-herd (Smyser farm) . 841 (R)
-herd (Steffes farm) 45
-herd (Wenthold farm) ..... 800 H (R)
-importance 851
Mange--calves 642
Manure--alfalfa..... 532
-fertilizer value 140
-management (Oregon) ..... 617(R)
-permits delayed (Washington state) 718
-poultry (dairy feed) 147
-spills 656
-storage ..... 736 (R)
-weed seeds 568
Manure handling (Thompson farm) 106
-wetlands..... 376
Manure pit--childproof 825
Marguerite--memorial to 510
Maroney, J. (organic milk)... 502
Marrs Brothers (2 1/2x milking)..... 86
Martin, L. (leasing cows) ..... 626(R)
Maastock Southern Dairies ..... 545 (R)
Mastitis--bedding and relation to..... 8
-clinical 624-646
-heifer 684-782
-predip cut new infections 724
-selenium supplementation and relation to 492
-Serratia marcescens infection 296
-Staph. 872
-Staph. aureus (no-drug treatment)..... QUALITY 10
-Strep. ag. 588
-teat canal prevents 686
-zinc supplement helps prevent 532
McArthur, S. (herd expansion) 386
McCormack--farm calls with Dec..... 212 (R)
McDonald, G. M., joins ADA 283
McDonald's--milk sales 695
Medicare--help with premiuims..... 63
-signup 353
Megatrends 455
Metzler, M. and B. (bed and breakfast) ..... 740(R)
Michigan Dairy Management Conference--dates 111
Mid-America Dairymen --annual meeting 366
-Glenn Milk, merge..... 282
Midwest Milk Marketing Conference--dates..... 151
Milk--assessment refunds .. 110-
-414-778
-blood pressure lowering effects on children..... 416
-breast, simulation 836
-butterballs 425
-campaign (adults) 858
-chocolate (dental cavities) 684
-components 105
-consumption (countries).... 24
-contaminated loads ..... QUALITY 14
-cooling (precooler)..... 344
-drinking habits 824
-drug and antibiotic residues..... 318-568
-drug tests ... QUALITY 5 -871
-drug tests (false positives) 241
-facts 781
-fat content..... 46
-filled (frozen concentrate) 852
-Grade B production ..... QUALITY 9
-high bacteria counts..... 50
-information sources 781
-iron absorption not blocked by..... 56
-McDonald's, sales 695
-nutrients from..... 392
-off-flavors 612-678
-off-flavors (oxidized) . 168-482
-organic (Europe) 798
-organic (Maroney farm).... 502
-per cow (states) 711
-quality (definition) ..... QUALITY 2
-quality and component tests 140
-quality payments. QUALITY 8
-rancidity 544
-residue occurrence..... 8
-school children prefer, at home..... 344
-SNF 684
-spot loads 114
Milk and Dairy Beef Quality Assurance Program ..... QUALITY 4
Milk fever--ammonium chloride, sulfate could reduce..... 252
-anionic salts help prevent 631-837
-feeding to prevent..... 30
-treatment..... 416
Milk house--waste 674
Milk marketing--Canada 55
-orders need reform ... 657(R)
-quota system 727
Milk prices..... 114-561-711
Milk pricing--Missouri ("self-help" plan) 259
-premiums (survey)..... 487
-state and regional plans 251-259-343
Milk production 114
-costs 826
-drop after move 558
-energy source and level affect 671
-increase offsets low prices 836
-peak 684
-per cow (states) 853
-problem analysis 12
-states..... 211-711
-total (states) 853
-world ..... 663 (R)
Milk promotion--Indy 500 522
-Milk Work Group 304
-Oregon..... 235
Milk quality--drug program 22
-inspections..... 94
Milk replacers 724
-decoquinate 603
Milk tank--contamination 416
-kicks on and off 745
-refrigerant recycling 750-
-800 F (R)
-sanitizing 406
Milk Work Group 304
Milker--robot ..... 506 (R)
Milking--mistakes costly 56
-practices (routine check) . 748
-preparation 448
-procedure 624
-procedures (multiple hurts quality) 662
-procedures (trouble-shooting) 578
-seasonal (B. Stone) . 749 (R)
-2 1/2x (Marrs Brothers)..... 86
Milking equipment--pipiline sanitation 414
-sanitizing 406
Milking machine--liner slips (teat and udder shapes affect)..... 252
Milking parlor--dry conditions important..... 258
-parallel 808
Milking Shorthorne--new look (World Dairy Expo)..... 235
Milking system--vacuum pump oils 806
Minerals--feeding..... 30-457
Minnesota Dairy Policy Conference 417
Missouri--"self-help" plan..... 259
Missouri Dairy Institute--dates 739
Mold--bedroom 63
-feed 878
Mothers--tribute 395
Murphy, D. and B. (rabies) ..... 843 (R)
Myers, J., family (4-H dairy cattle judging)..... 315(R)

- N -

NAAB--annual meeting 600
National Association of Animal Breeders--annual meeting 600
National Cheese Exchange 567
National Conference on Milking Center Design--dates 647
National Dairy Board--annual meeting 505
-milk campaign (adults).... 858
-promotion..... 383-493
-research 835
-school breakfast programs 449
National Dairy Database 724
National DHIA--annual meeting..... 334
National Farmers Union--annual conference..... 295
National FFA Convention --awards..... 13
National Hay Association--annual meeting 671
National Holstein Association --annual meeting 538
-new herdbook..... 538
National Research Council --nutrition conference 810
Neckties 458
NEDCO 651
Negratti, A. L., to head NDC 184
New Hampshire Milking Equipment Conference --dates..... 151
Newspaper--bedding ... 627-782
Niacin--feeding 786
Nissley, J. and E. (bed and breakfast) ..... 740 (R)
Nitrates--high (silage) 532
-water 425
Nitrogen--alfalfa source of... 344
-legume plowdown..... 140
-machine measures soil .. 492
Norka, M. (manure spill)..... 656
Northeastern Dairy Conference--speech..... 377
Nostalgia 703
Nursing home--expenses (effect on spouse) 27
Nutrition--"Food Guide Pyramid..... 448
-labeling regulations..... 415
-milk 389
National Dairy Board 493
-school-sponsored snack 252

- O -

Off-flavors 78-168-482-544-612-..... 678-804
O'Neil, L. (mean bull) 755
Open house--check list. 206 (R)
Opossum--toilet 513
Opperman, F. (Milk and Dairy Beef Quality Assurance Program) 41
Orchardgrass--feeding..... 204
Oregon--manure and waste management ..... 617(R)
-milk promotion 235
Oregon Dairy Products Commission--race car promotion..... 405
Organizations--farmer dissatisfaction..... 377
-state dairy..... 846-847
Ovaries--cyst (ultrasound) .. 652
Overdrafts..... 363

- P -

Paint--lead in old 541
Painting--aluminum siding .. 501
-Guernsey, really Jersey ..... EXPO 27
-steel siding 619
-time period between (home) 209
Paper--shredded (bedding) 627-782
Paper, E., retires 320
Parsons, K. (starting dairying) 128
Pasture-Haupt farm ..... 699 (R)
-mixed ..... 800 G (R)
Patterns ..... 37-71-121-189-239-.....275-331-363-395-433-473-.....513-549-591-633-665-703-.....761-813-
Peanut shine--feeding 612
Pea-triticale blends--feeding 787
Pedigrees--reading 187
Personal experience--value of 520
Pest control 468
Pesticides--less-than-label-rates application..... 200
Pharmacows (Kay-Ben Holsteins)..... 586(R)
Photographers--cattle . EXPO24
Pickard Family (buying all feed)..... 496
Pinkeye--fly control reduces risk of 448
Pipeline--sanitation..... 414
Placenta--retained 131
Pneumonia--calves..... 407
Poland--cattle ..... 800 D (R)
Poultry--waste (dairy feed).. 147
Precooler--efficiency 344
Predipping--study 652
Premiums--Wisconsin Agricultural Statistics Service survey 487
Privatization--Hungary 629
Processing plants--oxidized flavors 482
Progesterone--high nitrates cause lower, levels 532
Progesterone test..... 344
Property--advice important before signing papers..... 103
-boundary checking 855
-lines 313-499
-markers (locating) 741
Propylene glycol--fatty liver reduced 852
Protein--blends (feeding)..... 471
-bypass 172-734
-dietary, and effect on reproduction..... 109
-feeding 685
-heifers and cows respond differently 492
PTO's--safety 503-684
Purebred Dairy Cattle Association--annual meeting 291

- Q -

Quarter--drying off one 827
Quiz 864
Quotas--milk (Canada) 727

- R -

Rabies (D. and B. Murphy farm) 843 (R)
Race car--Oregon Dairy Products Commission 405
Radon 251
Railbed--abandoned (bike trail)..... 217
Rainey, M. (herd management) ..... 216 (R)
Range--hood drips..... 149
Rations--balanced..... 214
-dry cow 79
Recycling--chemical containers 296
Red factor--anecdote . 744 I (R)
Refrigerant--recycling ..... 750-.....800 F (R)
Refunds--assessment 110
.....414-778
Regional Cooperative Marketing Agency 179
Reindeer--commercial raising 190
Relationships--family .. 540-548-.....549
Reliability 381
Rent--guidelines 853
Repeat breeders 803
Replacements 460
Reporters--dealing with 807 (R)
Representative payee 845
Reproduction--body condition and relation to 635
-dietary protein and effect on 109
-dry matter and energy important in 568
-efficiency (Kennedy farm) ..... 393(R)
-feeding and (follicle size) 296
-management and animal welfare 210
-new technologies..... 388
Reproductive trouble--repeat breeders 803
-retained placentas..... 131
Research--feeding, reports 746
-ImmuCell Corporation. 586(R)
-National Dairy Board 835
Retirement--planning ... 632-702
Right-of-way 587
Ringer's solution 879
Robot milker ..... 506 (R)
Rolling herd average 826
Roof--snow slide prevention . 54
Roofing 17
Round Table--Bigger isn't always better 838
-Cow comfort and cleanliness are free stall keys... 142
-How they get milk out of cows 784
-Selling cattle adds to their income 90
-These dairymen get high production and don't feed TMR's..... 58
-They like their bunkers and bags..... 10
Rumens--feeding 655-665-726-.....786-840
Rural leadership programs ..... 800 A (R)
Russia--banya..... 283
-farmers from (Vermont Techical College)..... 262(R)
-United Farm Technologies 369
-farming 768

- RECIPES AND FOODS -

Apple crisp 590
Apple squares 590
Apples--caramel 590
-recipes 590
Balls--skillet 512
Bars--Danish apple 590
Biscuits--baking powder 274
-cinnamon 274

-velvet cream 274
Butter--apricot 274
-maple 274
Brownies--butterscotch 188
-double chocolate 188
-tri-level 188
Cake--angel food surprise... 432
-pina colada filled angel food 432
-sugarless breakfast apple 590
Caramel apples 590
Casserole--broccoli and rice 664
Cheesecake--cranberry eggnog 860
-Marsha's creamy 860
-three-step 860
Chicken--easily elegant 70
-Evelyn's easy, divan 70
-lemon-garlic, and Roman wild rice 70
-macaroni, surprise 70
Crust--graham cracker 860
Drink--orange smoothie 512
Filling--farmer's pie rice 664
Frosting--brown butter 188
Granola--homemade 760
Milk shake--raspberry-apple 512
Muffins--maple 760
-oat bran 760
-rag-a 274
Nachos 512
Parfaits--peanut butter pudding 512
Peppers--stuffed 664
Pie--farmer's 664
Pudding--shapes 512
Rice--Mexican 664
Salad--cukes and cream 432
Sandwiches--cheese loaf slices 362
-cheesy combos 362
-grilled Swiss apple 362
-ham and egg 432
-Muenster-beef 362
-peanut-apple-Cheddar 362
Sauce--raspberry chocolate 188
Snacks--smart 760
Scones--gingerbread ... 274-329
Souffle--lemon rice 664
Spread--lemon cream .. 274-329
Squares--apple 590
Stew--Brunswick (McCormack recipe) ..... 212 (R)
Tarts--mini fruit 664
Waffle cheese bake 760

- S -

Safety--bull 333
-chemicals 376
-chemicals (children) 650
-chemicals (Weiss family) 60
-manure pit 825
-PTO 503-684
Scales--malfunctioning, caused DA's 504
Scholarship--Kildee (lager wins) ..... EXPO 32
-UDIA/Dairy Shrine.. EXPO 30
Schools--breakfast programs 449
-public, reform 189
-technical 705
"Science"--dissertation on wonders of 224
Scott, H. ..... 469(R)
Scours--calves 28
Sculpture--Lyon cow 223
Seed--alfalfa (cheap) 492
Seeding--late-summer 497
Selenium--supplementation 492-691
Semen--handling 532
-one million units (Fisher-Place Mandingo) 621
-prices 252
-purchase plan 568
Septic tank--starter 281
Shows--winning isn't everything 480
Siberia--Beringia 61
Siding--painting aluminum . 501
-painting steel 619
Signs--plastic lumber 714
Silage--alfalfa 252
-alfalfa (ammonia application) 155
-corn ..... 117 (R)
-corn (harvesting) 614
-feeding 390
-frost-damaged corn 636
-hay 536-575
-inoculants 606
-making 339
-nitrate toxicity 532
-storage (Round Table) 10
-tallow protects 782
Silo--bunker 253
Silo unloaders--top 653
Sire selection ..... 32-68-88-139-....150-165-200-229-361-569-.....673-684-752-836
Sires--young 569
Skim milk--humorous anecdote 207
Slaughter--management of, animals 222
Sludge--phosphorus level .. 636
-recycling ..... 270 (R)-691
Smyser, R. and R. (herd management) ..... 841 (R)
Snack--school-sponsored ... 252
Snow--weight 99
Social security--disabled child 457
-earning limits 251
-mother (coverage for) ... 501
-representative payee 845
-SSI qualification for Down's son 541
-wife's share 691
Soil testing 220-296
Solar fencer 575
Somatic cell counts--breeding for low 229
-grazing cattle helps lower . 88
-lowering one point (return) 376
Sorghum-sudangrass 149
Southern Dairy Conference 242
Soybean fodder--feeding ... 659
Soybeans--rotating with corn 724
Soyhulls--feeding 344
Sperm production--research (rats) 24
Spring forage conference --dates 95
Spontaneous combustion (prevention) 568
Sprecher, M., dies 779
St. John, R. (herd expansion) 386
Stalls--dimensions 353
Standby generators ... 744E (R)
Steers--Holstein 140-344
-vitamin E feeding 448
Steffes, J. and D. (herd management) 45
Steward, M. and S. (getting started) 128
Stone, B. (seasonal milking) ..... 749 (R)
Stray voltage 12
-farmer's viewpoint 152
-handbook 809
Stress--cows 457
-trucking, measured 492
Student--Soviet, in U.S. 329
Subsidies--farmers' attitude. 330
Suburbia--dairying on fringe 418
Summer--cow maintenance 419
Summit Cheese--Wisconsin Dairies buys 810
Supplements--mixing feed... 140
Swartz, H. W., dies 487
Sweden--drought 756
Swiss Valley Farms 320

- T -

Tail--switch loss 367
Tail docking--calves 54
Tallow--big bale sealing with. 56
-feeding 612
-silage protection 782
Taxes--income (medical fringe benefit plan) 612
Teat dipping 158-724
Teat dips--barrier dip 854
-effectiveness against chapping 200
Teats--canal prevents mastitis 688
-gel for cleaning 448
-udder and, shape affect liner slips 252
-ulcerated 603
-warts (heifers) 675
Teeth--cheese controls cavities 200
-chocolate milk research (cavities) 684
Temperature--sensors (cows) 568
Tesarmann, H. (alfalfa growing) 297
Texas Association of Milk, Food and Environmental Sanitarians--annual meeting dates 414
Thanksgiving 813
The People Side --introduction 36
Thompson, T. (manure handling) 106
Time off--importance ... 238-472
Tires--slipping 796
TMR--topdressing with 733
Topdressing--TMR 733
Tractors--auto-pilot systems 215
-front-wheel drive .....33(R)
-tire slippage 796
Triplets 138
Trucking--cows (stress test) 492

- U -

Udder--composites 434
-preparation 698
-quarter drying off 827
-sensor 568
-sores 483
-teat and, shapes affect liner slips 252
UDIA--annual meeting 849
-Dairy Shrine, scholarships ..... EXPO 30
-milk campaign (adults).... 658
-school breakfast programs 449
Ukraine--student exchange ... 72
-tour 620
Ultrasound--ovarian cyst detection 852
Unloaders--silo (top) 653
United Farm Technologies . 399
Urea--feeding 791
Uruguay--dairying ..... 850 (R)
U.S. Dairy Forum 89

- V -

Vacations--need for 238-472
Vaccination--clostridial diseases 736
Vaccine--coccidiosis reduces, effect 492
-mixing 612
Vacuum pump--cills 806
Van Wagner, T. and R. (embryo transfer) 426
Vendor fees 251
Ventilation--barn ..... 17-261-353-.....419-495
-calf barn 659
-wind tunnel 495
Vermont Technical College--Russian program 262
Veterinarian--experience in Africa 310
-Expo practice 788
-tail stories 822
Veterinary--calls (McCormack) ..... 212(R)
Video--Holstein Show (Dairy Expo) ..... EXPO 30
Vitamin E--steaks remained fresh-looking longer when steers fed 448
-supplemental 532
Voegeli, H., wins Klussendorf Trophy 731
Voelker, H., dies 3

- W -

Wages--farm employees 713
Wales--dairying ..... 206(R)
Walls--block (barn) 691
Walton, R. C., retires 601
Warts--freezing 715
-heifers 675-827
Washington--state (manure permits delayed) 718
Washington Dairygrams ... 5-53-85-137-197-249-293-341-373-. 413-445-489-529-565-609-.....649-681-721-777-833
Wasps--parasitic (fly control) ..... 266-800 B (R)
Waste--milk house 674
Water--clean (Oregon program) ..... 617(R)
-importance in cold weather 56
-magnetic treatment 811
-nitrates 425
-Texas, quality 782
-usage study (five dairies) 751
-waste (milk house and parlor) 674
Waterers--nipple 99
Weaver, D., Dairy Shrine Guest of Honor..... EXPO 34
Weed control 88
Weeds--seeds in manure ... 568
Weiss, S., family (pipeline cleaner tragedy) 60
Wenthold, T. (herd management) ..... 800 H (R)
Western North Carolina Development Assn.... 102 (R)
Wetlands--animal waste disposal 376
Wife--dairy farm (qualifications for outside job) 433
Wind tunnel ventilation 495
Windows--home 63
Winkle, W. (manure split) ... 656
Winter dysentery 396
Wisconsin--agricultural background ..... EXPO 2
Wisconsin Agricultural Statistics Service--survey 487
Wisconsin Dairies--annual meeting 286
-Summit Cheese purchased by 810
Wisconsin Forage Council Green-Gold program 26
Wisconsin Joint Educational Conference--dates 601
Wood--preservative treatment formula (doors and windows) 99
Woodhouse, R. (bed and breakfast) 183
World--dairy policies 531
World Dairy Expo--announcers .....EXPO 12
-Dairy Shrine social . EXPO 32
-European trip ..... EXPO 28
-exhibitor guide ..... EXPO 5
-FFA learning experiences ..... EXPO 20
-fun run ..... EXPO 29
-grounds to expand EXPO 38
-Hoard's Dairyman booth .....EXPO 4
-Holstein Show video ..... EXPO 30
-honorees ..... EXPO 16
-international guests ..... EXPO 29
-International Lounge .....EXPO 18
-judges ..... EXPO 31
-judging contest winners 758-.....759-821
-memories .. EXPO 13 and 28
-nominations sought 309
-reactions of non-cow person ..... EXPO 22
-ringside notes 729
-scenes 757
-schedule 370-EXPO 8
-show reports 730-731
-show winners (1991) .....EXPO 33
-showmanship secrets .....EXPO 14 (R)
-staff changes 435
-trade show .....EXPO 10
-veterinary practice 788
-visitor comments ... EXPO 36

- X - Y - Z -

Yogurt--immune system boost 612
York, J. (cookbook) 120
Younger, D., anecdote 641
Zinc--mastitis prevention 532

- PICTURED WERE -

Allenstein, L. ..... EXPO 16-731
Anderson, N. 350
Averhoff, K., K.R., V. and K. 203
Ayars, J. and B.... EXPO 15 (R)
Ayrshire bull--Brow-Ayr Vitality's Ramses 584
-Otter-Creek Jilda's Welcome 164
Ayrshire cow--West Meadow Classic Brittany 730
Baderman, A. and S. 838
Balazs, L. 411
Barber, L. 576
Barends, J. and T. 660
Barlass, G. ..... EXPO 15 (R)
Beckerdorf, C. 279
Beitz, D. C. 622
Bejster Family 299
Bender, J., L. and J. ..... 382(R)
Bennett, H. and R. ..... 108 (R)
Beversdorf, J. 41
Bird, J. 180
Birdsell, A. and W., and family ..... 689 (R)
Bocher, L. ..... EXPO 23
Bonde, D., S., K., J., and K. .....744 L (R)
Boulio, K. and P. 838
Bourquin, B. and C. .. EXPO 36
Bowker, S. ..... EXPO 36
Breunig, T. 375
Britt, J. 745
Broadwater, B. 347
Brown, D. 298
Brown, J. ..... EXPO 16
Brown Swiss bull--K Top Acres Dotson 584
-Tuolumne Troubadour 164
Brown Swiss cow--Bridge View Jubilees Dana 730
Buckner, R. and J. ..... 35 (R)
Burton, G. ..... 585(R)
Butler, C. 538
Butterbrodt, R. 41
Camerlo, T. 374
Carlton, R. 41
Child, J. 493
Clark, B. 561
Cleland, J. 374
Conard, W., Jr., and W. 731
Congdon, E. ..... 694 (R)
Conrad, K. A ..... EXPO 2
Cooper, S. and R. 257
Copperrider, T. ..... 113 (R)
Cox, C. 298
Crowell, B. and L. ..... 35(R)
Curtis, D. 838
Davis,A. 279
Denier, F. 90
Denier, R. 561
Dickenson, D. 10
Dickson, D. ..... EXPO 31
Doak, G. 600
Docheff, J. 143
Downs, T. 266
Doyle, J. 417
Driscoll, R. and J. 687
Dumont, R. 759
Edmunds, W. 298
Edwards, K. ..... EXPO 37
Elkin, I. 350
Ella, L. ..... EXPO 31
Elsass, L. ..... EXPO 31
Emerling, B. 758
Engel, J. 556
Engst, S. ..... 479(R)
Erdman, M. 347
Fahey, G. C. 623
Fessenden, J. and T. 420
FFA--Adair County High School 431
Fitzsimmons, R. 298
Foster, W. 534
4-H Club--Missouri Valley, judging team 404
Friesen, D., B. and A. 381
Froehlich, J., D., and D., Jr. 297
Funk, D. 534
Fury, J. 279
Gady, B. 714
Gallagher, T. P. 182
Gammon, S. 375
Gerhart, S. 279
Giacomini, B. 505
Gordon, J., J., and J. .... 586(R)
Grant, J. ..... 586(R)
Grant, J. G. ..... 586(R)
Grosenickle, G. 418
Guernsey bull--Lily Lane Penny Perfecto 164
-Nells Glow Admiral Magic 584
Guernsey cow--Wincrest Vayette Grace 731
Gunderson, C. 90
Hale, J. 142
Hanman, G. 386
Hardesty, J. ..... EXPO 16
Hardesty family 91
Hatfield, K., D., and M. 661
Haupt, F. and A. ..... 699 (R)
Hawbaker, C. 142
Hayes, S. 256
Hemauer, S. 505
Hemenway, E. 143
Henderson, T., family 785
Hendress, S., J., and A. 298
Hershey, D., M., A., and J. ..... 852 (R)
Hinton, J. ..... 470(R)
Holstein bull--Kim-Mel Bell Joy 160-580
-Osdel-Endeavor Bova Cubby 160
-Reyno-Way Kemper 580
-Zieland Fast Future. 160-580
Holstein calf--Snowball 834
Holstein cow--C Merkley Starbuck Whitney 731
-Rilara Mars Las Ravena ..... 216(R)
-Snowflake 834
Holterman, L. 784
Horst, R. ..... 422 (R)
Howse, J. 199
Hughes, C. J., and R. 661
Hurtgen, K. and L. 267
Hutjens, M. F. 623-802
Iager, M. 758
Jackson, C. ..... 754 (R)
Jackson, T. (Granny) ... 754 (R)
Jersey bull--Duncan Duke of Glenwood 583
-Highland Duncan Lester.. 163
Jersey cow--Justin Mary To Be 730
Jesse, E. 417
Kahler, J. 298
Kasten, J. 350
Kempton, L., family ..... 859 (R)
Kennedy, L. and R. ..... 393 (R)
Kenyon, F. ..... 112(R)
Kerr, S. 538
Kilburn, P., Sr. 298
Kindig, R. 334
Klusman, T. 10
Knopp, P. ..... 302 (R)
Kostedt, A. 279
Kramer, R. and F. 58
Labrensz, L. and P., and children 660
Larsen, E. 297
Larson, R. 354
Leonardo, J. and C. 58
Ling, A. and J. 91
Loper, J. 505
Lourie, C. and D. 538
Majeskie, L. ..... EXPO 15 (R)
Major, Prime Minister John . 295
Marion, R. 354
Maroney, J. 502
Martin, R. and L., D. and J. ..... 626(R)
Maryland 4-H judging team 758
McArthur, S. 386
McCarron, F. ..... 545(R)
McConnell, T. 838
McCormack, J. ..... 212 (R)
McCullough, M. M. 271
McFarland, D. F. 379-570
McKay, G. ..... 113 (R)
McKee Family 299
Medlang, M. and J., and children 661
Meier, T. 11
Meilke, H. ..... 469(R)
Milking Shorthorn bull--Idalee Quiet Revolution-Twin 584
-NWR K Schie 164
Milking Shorthorn cow--Innisfail Lobelia 72nd-EXP 730
Mills, N. ..... 320 (R)
Mitchell, T., family 375
Mix, L. S. 622
Mueller, K. ..... EXPO 26
Muhlenbeck, D. ..... EXPO 37
Murphy, D. ..... 843 (R)
Myers, J., D., K. and K. 315 (R)
Negratti, A. L. 184
Nesbitt, A. ..... EXPO 12
Nissley, J. and E. ..... 740 (R)
Norton, C. ..... EXPO 37
Nuutilla, R. ..... 112 (R)
O'Brien,L. 505
Odle, D. ..... EXPO 36
Oliver, S. P. 623
Opperman, F. 41
Opperman, M. 41
Ortego, A. 417
Parsons, K. 128
Pereira, R. 838
Perkes, L. 59
Phend, P. 298
Pickard, B., B., and N. 496
Pierson, D. and D. 839
Punsel, S. 784
Quesnell, M. 334
Quickfall, B. ..... EXPO 26
Rainey, M. ..... 216 (R)
Roberts, J. 10
Rohrer, M. and E. ..... 740 (R)
Rollin, P. 835
Rutt, K. 199
Rutter, J. and B. ..... 805 (R)
Rymph, D. and S. 451
Schiedler, D. and N. 839
Schooley, R. 547
Schuh, B. 495
Scott, H. ..... 469(R)
Seehafer, L., and K., and family 661
Selpt, D., family 784
Selner, D. ..... EXPO 13
Senior showmanship winners 759
Sheppard, D. J. 375
Sievers, D. 364
Sievert, A. and S. 602
Singy, R. ..... EXPO 16
Skees, H. 59
Skellie, D. 451
Sliker, W. 347
Smuser, R. and R. ..... 841 (R)
Sohrweide, R. 256
Sousa, E., Family..... 303 (R)
Sparrow, S. 298
St. John, R. 386
Steffes, J. and D. 45
Steward, M. and S. 128
Steward, W. and J. 785
Stewart, B. ..... EXPO 31-757
Stone, B. ..... 749 (R)
Strickler, I. 386
Strohmeyer, H. ..... EXPO 24
Stryk, R. ..... 112 (R)
Sumrall, E. 279
Sutherland, T. 538
Tabb, C. and J. 418
Terwilliger, T. 381
Tessmann, H. 297
Topel, E., Jr. ..... 744G (R)
Ulrich, R. ..... QUALITY 1
Utecht, R. ..... EXPO 37
University of Missouri-Columbia--judging team .. 404
University of New York-Morrisville post-secondary judging team winner 759
University of Wisconsin--Madison--judging team 756
Van Pay, M 10
Van Wagner, T. and R. 426 (R)
Vanderham, P. .... EXPO 14 (R)
Vendleton, V., Family .... 303(R)
Virginia Tech Dairy Club 539
Voegeli, H. 731
Wagner, M. and K. 687
Weaver, D. ..... EXPO 24
Weiss, S., W., J. and N. 60
Wendorf, N. . 347-EXPO 14 (R)
Wenger, R. and A. 299
White, R. and M. 661
White, S. ..... EXPO 31
Wilk, J. 347
Wilson, D. 600
Wiskus, B. and J. ..... EXPO 36
Woelffer, E. 731
Woodhouse, R. 183
Wright, H. 547
Wright, T. ..... 754 (R)
York, J. 120

- COVER PICTURES -

Ayrshire class in cow judging contest 133
Beer Farms, Inc., Holsteins (Max and Karen Beer) 245
Breezy Acres Farm Holsteins (W. and A. Farber) 645
Brown Swiss class in cow judging contest 1
Browncroft Holsteins (B. and J. Brown) 525
Christmas drawing 829
Durrer, L., and Sons Holsteins 337
F & R Cattle Company Holsteins 441
Guernsey class in cow judging contest 81
Holstein class in cow judging contest 49
Jersey class in cow judging contest 193
Jocund Way Farm Jerseys (Bud and W. C. Burdette) 209
Kruse Brown Swiss (L. Kruse and sons)..... 372
Miller, J., Ayrshires 409
Packard, R. and M., Holsteins 677
Pierce Farms Guernseys (J. and K. Schumaker) 485
Sunny Acres Brown Swiss (L. Tyler and family) 605
Sweet Grass Jerseys (J. and L. Booth) 773
Valu-Ayr Farm Ayrshires (A. and K. Gaddis) 717
World Wide Sires 561